

In the SpecificationParagraph beginning on page 3, line 4

Q1 Juvenile vehicle seat assembly 10 includes a seat 12, 14, a base 16, and a cupholder 18 as shown in Fig. 1. Base 16 is arranged to support seat 12, 14 and formed to include a cupholder receptor 38 and first, second, and third engagement surfaces 48, 50, 54 as shown in Figs. 2 and 3. First, second, and third engagement surfaces 48, 50, 54 are arranged to lie in spaced-apart parallel relation to one another as shown in Fig. 3. Second engagement surface 50 is positioned to lie between the first and third engagement surfaces 48, 54 as shown in Fig. 5.

Paragraph beginning on page 3, line 10

Q2 Cupholder 18 is mounted for movement relative to base 16 between a retracted position shown in Fig. 5 and an extended position shown in Fig. 7. Cupholder 18 includes a cup receiver 20 and a base connector 22 coupled to cup receiver 20 and arranged to extend into cupholder receptor 38 formed in base 16 as suggested in Figs. 1-3. Base connector 22 including a first retainer 62 arranged to confront first and second engagement surfaces 48, 50 upon movement of cupholder 18 to the extended position to inhibit movement of cupholder 18 relative to base 16 and away from the extended position as shown in Fig. 7. First retainer 62 is also arranged to confront third engagement surface 54 upon movement of cupholder 18 to the retracted position to inhibit movement of cupholder 18 relative to base 16 and toward the extended position.

Paragraph beginning on page 3, line 15

Q3 As shown in Fig. 3, base 16 includes a front 28, a rear 30, and a pair of side walls 32, 34. Base 16 further includes means (not shown) for coupling seat bottom 12 to the base. Side wall 32 of base 16 is formed to include an opening 39 into a cupholder receptor 38 formed in base 16 to receive base connector 22 of cup holder 18 and permit sliding movement of base connector 22 relative to base 16. Although certain embodiments are disclosed herein as including base 16, it is within the scope of this disclosure to incorporate the features described herein as being part of base 16 into the seat bottom 12 or other portion of juvenile vehicle seat 10.

Base 16 includes a deck 36 formed to include first, second, and third engagement surfaces 48, 50, 54 and to define a ceiling of cupholder receptor 38 as shown in Figs. 5-7. Base connector 22 includes a retainer mount portion 26 that is arranged to lie under deck 36

and a neck portion 27 that is arranged to interconnect retainer mount portion 26 and the cup receiver 20 as shown in Figs. 3 and 6. Retainer means 62, 64 is coupled to base connector 22 for contacting base 16 to inhibit movement of cupholder 18 relative to base 16 between the retracted position and extended position as suggested in Figs. 5-7. Retainer means 62, 64 includes first retainer 62 and second retainer 64 as shown in Fig. 3.

First retainer 62 is coupled to retainer mount portion 26 as shown in Fig. 3. First retainer 62 is arranged to extend upwardly toward deck 36 to confront first and second engagement surfaces 48, 50 upon movement of cupholder 18 to the extended position and to confront third engagement surface 54 upon movement of cupholder 18 to the retracted position.

Deck 36 is formed to include a first opening 46 defined in part by first and second engagement surfaces 48, 50 and sized to receive therein a portion 70, e.g. a detent, of first retainer 62 upon movement of cupholder 18 to the extended position. Deck 36 is also formed to include a second opening 52 defined in part by third engagement surface 54 and sized to receive therein the detent 70 of the first retainer 62 upon movement of cupholder 18 to the retracted position as shown in Fig. 5. Detent 70 has a curved surface arranged to confront first and second engagement surfaces 48, 50 upon movement of cupholder 18 to the extended position and to confront third engagement surface 54 upon movement of cupholder 18 to the retracted position.

First retainer 62 includes a flexible first tab 66 cantilevered to retainer mount portion 26 of base connector 22 to move up and down relative to deck 36 and detent 70 is appended to flexible first tab 66 to move up and down therewith. Detent 70 is sized to extend into first opening 46 to confront first and second engagement surfaces 48, 50 upon movement of cupholder 18 to the extended position and to extend into second opening 52 to confront third engagement surface 54 upon movement of cupholder 18 to the retracted position. Flexible first tab 66 provides means for moving detent 70 in an upward direction into second opening 52 to confront third engagement surface 54 upon movement of cupholder 18 to the retracted position as suggested in Figs. 5 and 6.

Base connector 22 further includes a second retainer 64 arranged to confront third engagement surface 54 upon movement of cupholder 18 to the extended position to inhibit further movement of cupholder 18 relative to base 16 away from the retracted position so as to block movement of cupholder 18 to a withdrawn position outside of cupholder receptor 38 formed in base 16. Second retainer 64 is coupled to retainer mount portion 26 to cause first retainer 62 to lie between neck portion 27 and second retainer 64. Second retainer 64 is

arranged to extend upwardly toward deck 36 to confront third engagement surface 54 upon movement of cupholder 18 to the extended position as shown in Fig. 7 and to lie in spaced-apart relation to third engagement surface 54 upon movement of cupholder 18 to the retracted position as shown in Fig. 5.

Second retainer 64 includes a flexible second tab 68 cantilevered to retainer mount portion 26 of the base connector 22 to move up and down relative to deck 36 and a catch 72 appended to flexible second tab 68 to move up and down therewith. Catch 72 is sized to extend into the second opening 52 to confront third engagement surface 54 upon movement of cupholder 18 to the extended position.

Catch 72 has a vertical stop surface 76 arranged to contact third engagement surface 54 to inhibit removal of cupholder 18 from cupholder receptor 38 formed in base 16. Catch 72 also includes a sloped surface 74 arranged to cam on second engagement surface 50 to bend flexible second tab 68 downwardly to move catch 72 relative to deck 36 and away from second engagement surface 50 during initial insertion of base connector 22 into cupholder receptor 38 and movement of cupholder 18 relative to base 16 toward the retracted position. Catch 72 is positioned to lie in second opening 52 in spaced-apart relation to third engagement surface 54 upon movement of cupholder 18 to the retracted position.

Base 16 further includes a platform 90 located under a portion of the cupholder 18 and a side wall 32 is located between deck 36 and platform 90. Side wall 32 is formed to include side opening 39 and cooperate with deck 36 to form cupholder receptor 38 under deck 36 to receive base connector 22 through the side opening 39 as suggested in Fig. 3. Cupholder 18 is arranged to move along a path above platform 90 during movement of cupholder 18 between the retracted and extended positions as shown in Figs. 5-7.

Base 16 further includes left and right guide supports 120, 122 located in cupholder receptor 38 under deck 36 and arranged to support a portion of cupholder 18 for sliding movement relative to base 16 during movement of cupholder 18 between the retracted and extended positions. Platform 90 is arranged to lie outside of cupholder receptor 38 formed in base 16 to support another portion of cupholder 18 for sliding movement relative to base 16 during movement of cupholder 18 between the retracted and extended positions.

Paragraph beginning on page 3, line 22

Referring now to Figs. 4-7, first portion 26 of base connector 22 is configured to cooperate with a second portion 40 of base 16. Second portion 40 includes first and second retainer engaging portions 42, 44 for engaging base connector 22. Illustratively, first retainer

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engaging portion 42 provides a first opening or notch 46 providing engagement edges or surfaces 48, 50 that cooperate with base connector 22 to inhibit movement of cup holder 18 from the extended position. Second retainer engaging portion 44 provides a second opening 52 providing a third engagement edge or surface 54 to cooperate with base connector 22 to inhibit movement of cup holder 18 from the retracted position and to inhibit removal of cup holder 18 from base 16. Although in illustrative embodiments base 16 includes first and second retainer engaging portions 42, 44, a single retainer engaging portion inhibiting movement of the cup holder 18 is within the scope of this disclosure. Additionally, although retainer engaging portions 42, 44 have been illustrated as including first and second openings 46, 52 providing engagement edges 48, 50, 54, other known structures cooperating with base connector 22 to inhibit movement of cup holder 18 are within the scope of this disclosure. For example, cup holder 18 could include a structure to interact with the seat bottom or base to provide friction or other forms of contact to inhibit movement of the cup holder.

Paragraph beginning on page 4, line 8

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As shown in Fig. 3, base connector 22 provides first and second openings 56, 58 each providing a connection edge 60. First portion 26 of base connector 22 includes first and second retainers 62, 64 having first and second tabs 66, 68 respectively, each tab being cantilevered to one of connection edges 60. As shown in Figs. 5-7, first tab 66 provides a detent 70. Illustratively, detent 70 has a curved surface. Also as shown in Figs. 5-7, second tab 68 provides a catch 72 having a sloped surface 74 and a stop surface 76.

Paragraph beginning on page 4, line 15

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As shown in Fig. 4, when cup holder 18 is in the extended position, cup receiver 20 is spaced apart from base 16 and seat bottom 12 by a distance 84 greater than when cup holder 18 is in the retracted position. In an illustrative embodiment, distance 84 is about two inches. However, it is within the scope of this disclosure for distance 84 to be other lengths. Distance 84 is illustratively sufficient in length so that cup receiver 20, when in the extended position, can accommodate cups or other articles having dimensions that would not be accommodated by the cup holder 18 in the retracted position.

Paragraph beginning on page 4, line 23

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In the retracted position shown in Fig. 5, cup receiver 20 is proximate or adjacent side 32 of base 16. In this position, catch 72 and detent 70 are positioned in second opening 52. When a user applies force to cup holder 18 in a direction 80, detent 70 engages third

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engagement edge 54 of opening 52 to inhibit movement of cup holder 18 from the retracted position toward the extended position.

Paragraph beginning on page 4, line 28

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Referring to Fig. 6, as a user applies a force sufficient to move cup holder 18 in direction 80 from the retracted position toward the extended position, the curved surface of detent 70 moves against third engagement edge 54 until first tab 66 flexes and detent 70 disengages third engagement edge 54. As a user continues to slide cup holder 18 in direction 80, detent 70 moves against a bottom surface of second retainer engaging portion 44.

Paragraph beginning on page 5, line 3

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As a user moves cup holder 18 to the extended position shown in Fig. 7, detent 70 snaps into first opening or notch 46. In this position, detent 70 is adjacent edges 48, 50 of first opening 46. Also as shown in the extended position of Fig. 7, catch 72 is adjacent third engagement edge 54 of second opening 52. When cup holder 18 is in the extended position, as a user applies force in direction 80 to cup holder 18, detent 70 and stop surface 76 engage edge 48 and third engagement edge 54 respectively, inhibiting removal of cup holder 18 from base 16. As a user applies force in direction 82 to cup holder 18, detent 70 engages edge 50, inhibiting movement of cup holder 18 from the extended position toward the retracted position.

Paragraph beginning on page 5, line 13

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To insert cup holder 18 into base 16, a user inserts base connector 22 into cupholder receptor 38. As the user moves cup holder 18 toward the retracted position, catch 72 slides along an underside of base 16. Sloped surface 74 facilitates insertion of base connector 22 by the user by reducing resistance in sliding catch 72 past edge 50.

Paragraph beginning on page 5, line 17

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Each of guide supports 120, 122 includes a generally upwardly facing support surface 128. In operation, as shown in Figs. 5-7, guides 110, 112 slide on support surface 128 thereby maintaining first portion 26 of cup holder 18 in the proper position to engage second portion 40 of base 16.

Paragraph beginning on page 5, line 23

Q12
As shown in Figs. 5-7, platform 90 illustratively provides additional support to cup holder 18 by supporting cup receiver 20 when cup holder 18 is in the retracted position, and